

WHAT IS CLAIMED IS

1. A high temperature oxidation resistant carbonaceous molding comprising:

a parent material containing carbon;

a metallic carbide containing layer which is formed such that a metal is diffused to a surface of the parent material and metal carbide is formed thereon and having cracks;

a vitreous member composed of a vitreous material filled in the cracks; and

a vitreous material layer formed on a surface of the metallic carbide containing layer;

wherein the vitreous member and the vitreous material layer are integrated.

2. A method for manufacturing a high temperature oxidation resistant carbonaceous molding comprising steps of:

contacting a metal penetrant containing a metal powder forming carbide, a halide and a sintering inhibitor and carbon material;

heating the metal penetrant and the carbon material in a ventilating current of rare gas; and

diffusing a metal deposited on a surface of the carbon material by a metallic halide gas formed by a reaction of the metal powder and the halide into the carbon material.

3. A method for manufacturing a high temperature oxidation resistant carbonaceous molding as set forth in Claim 2, further comprising a step of:
forming a vitreous material layer on a surface of the carbon material.
4. A high temperature oxidation resistant carbonaceous molding as set forth in Claim 1, wherein the metallic carbide containing layer has more than 65 wt% content ratio.
5. A high temperature oxidation resistant carbonaceous molding as set forth in Claim 1, wherein the metallic carbide containing layer has thickness of from 10 to 50 μm .
6. A high temperature oxidation resistant carbonaceous molding as set forth in Claim 1, wherein the cracks are like wedges from a surface of the metallic carbide containing layer toward the parent material.
7. A high temperature oxidation resistant carbonaceous molding as set forth in Claim 1, wherein the metal is at least one of chromium, titanium, zirconium, hafnium, vanadium, niobium, tantalum, molybdenum, tungsten and silicon.
8. A method for manufacturing a high temperature oxidation

resistant carbonaceous molding as set forth in Claim 2, wherein the halide is at least one of ammonium chloride, ammonium fluoride and ammonium iodide.

9. A method for manufacturing a high temperature oxidation resistant carbonaceous molding as set forth in Claim 2, wherein the sintering inhibitor is at least one of alumina and titania.

10. A method for manufacturing a high temperature oxidation resistant carbonaceous molding as set forth in Claim 2, wherein the rare gas is at least one of argon, helium and neon.

11. A method for manufacturing a high temperature oxidation resistant carbonaceous molding as set forth in Claim 2, wherein the vitreous material layer is at least one of sodium silicate, potassium silicate, aluminum phosphate and colloidal silica.